IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please CANCEL claims 3 and 22 without prejudice or disclaimer of the subject matter recited therein and AMEND claims 1, 19 and 33 in accordance with the following:

1. **(Currently Amended)** A lithium-sulfur battery comprising:

a negative electrode including a negative active material selected from the group consisting of materials in which lithium intercalation reversibly occurs, a lithium alloy, and a lithium metal;

a positive electrode including a positive active material comprising at least one sulfur-based compound selected from the group consisting of elemental sulfur and organosulfur compounds, and an electrically conductive material; and

an electrolyte including a sulfur-containing electrolyte salt and mixed organic solvents;

wherein the mixed organic solvents of said electrolyte comprise at least three different solvents, each selected from a different group of a set of groups, the set of groups consisting of a weak polar solvent group, which is capable of dissolving elemental sulfur, a strong polar solvent group, which is capable of dissolving lithium polysulfide, and a lithium protection solvent group, which forms a good protective layer on a lithium surface,

wherein the weak polar solvent ~~is selected from the group consisting of aryl compounds, cyclic or noncyclic ether compounds, and noncyclic carbonate compounds, and~~ has a dielectric coefficient of less than 15 and ~~the weak polar solvent~~ comprises one solvent selected from the group consisting of xylene, dimethoxyethane, 2-methytetrahydrofurane, diethyl carbonate, dimethyl carbonate, toluene, dimethyl ether and diethyl ether, and

wherein the strong polar solvent comprises one solvent selected from the group consisting of hexamethyl phosphoric triamide, γ-butyrolactone, acetonitrile, ethylene carbonate,

propylene carbonate, N-methyl pyrrolidone, dimethyl formamide, sulfolane, dimethyl acetamide, dimethyl sulfoxide, dimethyl sulfate, ethylene glycol diacetate, dimethyl sulfite, and ethylene glycol sulfite.

2. **(Cancelled)**

3. **(Cancelled)**

4. **(Original)** The lithium-sulfur battery according to claim 1, wherein the lithium protection solvent is selected from the group consisting of saturated ether compounds, unsaturated ether compounds, heterocyclic compounds including N, O and S.

5. **(Cancelled)**

6. **(Cancelled)**

7. **(Original)** The lithium-sulfur battery according to claim 4, wherein the lithium protection solvent comprises one solvent selected from the group consisting of tetrahydro furan, ethylene oxide, dioxolane, 3,5-dimethylisoxazole, 2,5-dimethyl furane, furane, 2-methyl furane, 1,4-oxane and 4-methyldioxolane.

8. **(Previously Presented)** The lithium-sulfur battery according to claim 1, wherein said positive electrode further comprises at least one additive selected from the group consisting of a transition metal, a Group IIIA element, a Group IVA element, a sulfur compound thereof, and an alloy thereof.

9. **(Previously Presented)** The lithium-sulfur battery according to claim 8, wherein the positive electrode further comprises a transition metal selected from the group consisting of Sc, Ti, V, Cr, Mn, Fe, Co, Ni, Cu, Zn, Y, Zr, Nb, Mo, Tc, Ru, Rh, Pd, Ag, Cd, Ta, W, Re, Os, Ir, Pt, Au and Hg.

10. **(Previously Presented)** The lithium-sulfur battery according to claim 8,

wherein the positive electrode further comprises a Group IIIA element selected from the group consisting of Al, Ga, In and Tl.

11. **(Previously Presented)** The lithium-sulfur battery according to claim 1, wherein the sulfur-containing electrolyte salt is lithium trifluoromethane sulfonimide.

12. **(Previously Presented)** A lithium-sulfur battery comprising:

a negative electrode including a negative active material selected from the group consisting of materials in which lithium intercalation reversibly occurs, a lithium alloy, and a lithium metal;

a positive electrode including a positive active material comprising at least one sulfur-based compound selected from the group consisting of elemental sulfur and organosulfur compounds, and an electrically conductive material; and

an electrolyte including a sulfur-containing electrolyte salt and mixed organic solvents,

wherein the mixed organic solvents comprise three different solvents, each selected from a different group of a set of groups, the set of groups consisting of a weak polar solvent group, a strong polar solvent group, and a lithium protection solvent group,

wherein a weak polar solvent is selected from the weak polar solvent group consisting of xylene, dimethoxyethane, 2-methyltetrahydrofurane, diethyl carbonate, toluene, dimethyl ether and diethyl ether,

a strong polar solvent is selected from the strong polar solvent group consisting of hexamethyl phosphoric triamide, γ-butyrolactone, acetonitrile, ethylene carbonate, propylene carbonate, N-methyl pyrrolidone, sulfolane, dimethyl sulfate, ethylene glycol diacetate, dimethyl sulfite, and ethylene glycol sulfite, and

a lithium protection solvent is selected from the lithium protection solvent group consisting of ethylene oxide, 3,5-dimethylisoxazole, 2,5-dimethyl furane, furane, 2-methyl furane, 1,4-oxane and 4-methyldioxolane.

13. **(Previously Presented)** The lithium-sulfur battery according to claim 12, wherein said positive electrode further comprises at least one additive selected from the group consisting of a transition metal, a Group IIIA element, a Group IVA element, a sulfur compound thereof, and an alloy thereof.

14. **(Previously Presented)** The lithium-sulfur battery according to claim 13, wherein the positive electrode further comprises a transition metal selected from the group consisting of Sc, Ti, V, Cr, Mn, Fe, Co, Ni, Cu, Zn, Y, Zr, Nb, Mo, Tc, Ru, Rh, Pd, Ag, Cd, Ta, W, Re, Os, Ir, Pt, Au and Hg.

15. **(Previously Presented)** The lithium-sulfur battery according to claim 13, wherein the positive electrode further comprises a Group IIIA element selected from the group consisting of Al, Ga, In and Tl.

16. **(Previously Presented)** The lithium-sulfur battery according to claim 12, wherein the sulfur-containing electrolyte salt is lithium trifluoromethane sulfonimide.

17. **(Cancelled)**

18. **(Cancelled)**

19. **(Currently Amended)** An electrolyte for use in a lithium sulfur battery having electrodes, the electrolyte comprising:

a weak polar solvent, which dissolves polysulfides having an oxidation number of sulfur that is near 0,

a strong polar solvent, which dissolves polysulfides having an oxidation number of sulfur between 0 and –1, and

a lithium protection solvent, which forms a stable solid-electrolyte interface on a lithium surface of one of the electrodes; and

a sulfur-containing electrolyte salt,

wherein the weak polar solvent ~~is selected from the group consisting of aryl compounds, cyclic or noncyclic ether compounds, and noncyclic carbonate compounds, and~~ has a dielectric coefficient of less than 15 and ~~the weak polar solvent~~ comprises one solvent selected from the group consisting of xylene, dimethoxyethane, 2-methyltetrahydrofurane, diethyl carbonate, dimethyl carbonate, toluene, dimethyl ether and diethyl ether, and

wherein the strong polar solvent comprises one solvent selected from the group

consisting of hexamethyl phosphoric triamide, γ-butyrolactone, acetonitrile, ethylene carbonate, propylene carbonate, N-methyl pyrrolidone, dimethyl formamide, sulfolane, dimethyl acetamide, dimethyl sulfoxide, dimethyl sulfate, ethylene glycol diacetate, dimethyl sulfite, and ethylene glycol sulfite.

20. **(Original)** The electrolyte according to claim 19, wherein the weak polar solvent is capable of dissolving elemental sulfur, and the strong polar solvent is capable of dissolving lithium polysulfide.

21. **(Cancelled)**

22. **(Cancelled)**

23. **(Original)** The electrolyte according to claim 19, wherein the lithium protection solvent is selected from the group consisting of saturated ether compounds, unsaturated ether compounds, heterocyclic compounds including N, O and S.

24. **(Cancelled)**

25. **(Cancelled)**

26. **(Original)** The electrolyte according to claim 23, wherein the lithium protection solvent comprises one solvent selected from the group consisting of tetrahydro furan, ethylene oxide, dioxolane, 3,5-dimethylisoxazole, 2,5-dimethyl furane, furane, 2-methyl furane, 1,4-oxane and 4-methyldioxolane.

27. **(Cancelled)**

28. **(Cancelled)**

29. **(Cancelled)**

30. **(Cancelled)**

31. **(Cancelled)**

32. **(Previously Presented)** The electrolyte according to claim 19, further comprising another solvent selected from the group consisting of weak polar solvents, strong polar solvents, and lithium protection solvents.

33. **(Currently Amended)** A method of manufacturing a lithium-sulfur battery, comprising:

preparing a slurry comprising a conductive material, an organic binder, and a sulfur-based compound;

coating the slurry on a current collector to form a positive electrode;

providing a negative electrode including a negative active material including a negative active material selected from the group consisting of a material in which lithium intercalation reversibly occurs, a lithium alloy and a lithium metal;

providing an electrolyte comprising a sulfur-containing electrolyte salt and mixed organic solvents, wherein the mixed organic solvents of said electrolyte comprise at least three different solvents, each selected from a different group of a set of groups, the set of groups consisting of a weak polar solvent group, which is capable of dissolving elemental sulfur, a strong polar solvent group, which is capable of dissolving lithium polysulfide, and a lithium protection solvent group, which forms a good protective layer on a lithium surface; and

placing the electrolyte between the positive and negative electrode using a separator to form the lithium-sulfur battery,

wherein the weak polar solvent ~~is selected from a group consisting of aryl compounds, cyclic or noncyclic ether compounds, and noncyclic carbonate compounds, and~~ has a dielectric coefficient of less than 15 and ~~the weak polar solvent~~ comprises one solvent selected from the group consisting of xylene, dimethoxyethane, 2-methyltetrahydrofurane, diethyl carbonate, dimethyl carbonate, toluene, dimethyl ether and diethyl ether, and

wherein the strong polar solvent is selected from the group consisting of hyxamethyl phosphoric triamide, γ-butyrolactone, acetonitrile, ethylene carbonate, propylene carbonate, N-methyl pyrrolidone, dimethyl formamide, sulfolane, dimethyl acetamide, dimethyl sulfoxide,

dimethyl sulfate, ethylene glycol diacetate, dimethyl sulfite, and ethylene glycol sulfite.

34. **(Original)** The method according to claim 33, wherein the positive electrode is formed to have a porosity of at least 5% of a volume of the positive electrode.

35. **(Original)** The method according to claim 33, wherein the positive electrode is formed to have a porosity is between 15% and 65% of a volume of the positive electrode.

36. **(Previously Presented)** The lithium-sulfur battery according to claim 8, wherein the positive electrode further comprises a Group IVA element selected from the group consisting of Si, Ge, Sn and Pb.

37. **(Previously Presented)** The lithium-sulfur battery according to claim 13, wherein the positive electrode further comprises a Group IVA element selected from the group consisting of Si, Ge, Sn and Pb.